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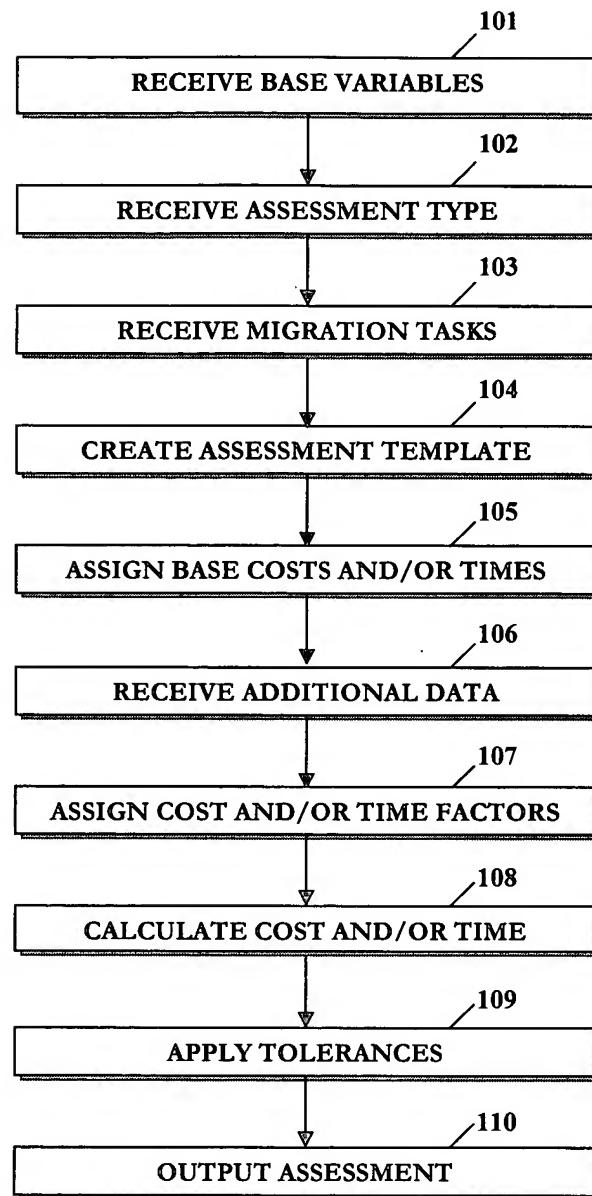


FIG. 1

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**ASSESSMENT TEMPLATE**

<b>Task No.</b>	<b>Migration Task</b>	<b>Estimated Cost</b>	<b>Estimated Time Requirement</b>
1	System Build	$f(c_1)$	$f(t_1)$
2	Baseline Test	$f(c_2)$	$f(t_2)$
3	Migration	$f(c_3)$	$f(t_3)$
4	System Test	$f(c_4)$	$f(t_4)$
5	Export Data	$f(c_5)$	$f(t_5)$
6	Import Data	$f(c_6)$	$f(t_6)$
7	Deployment	$f(c_7)$	$f(t_7)$

**TOTALS**

**FIG. 2**

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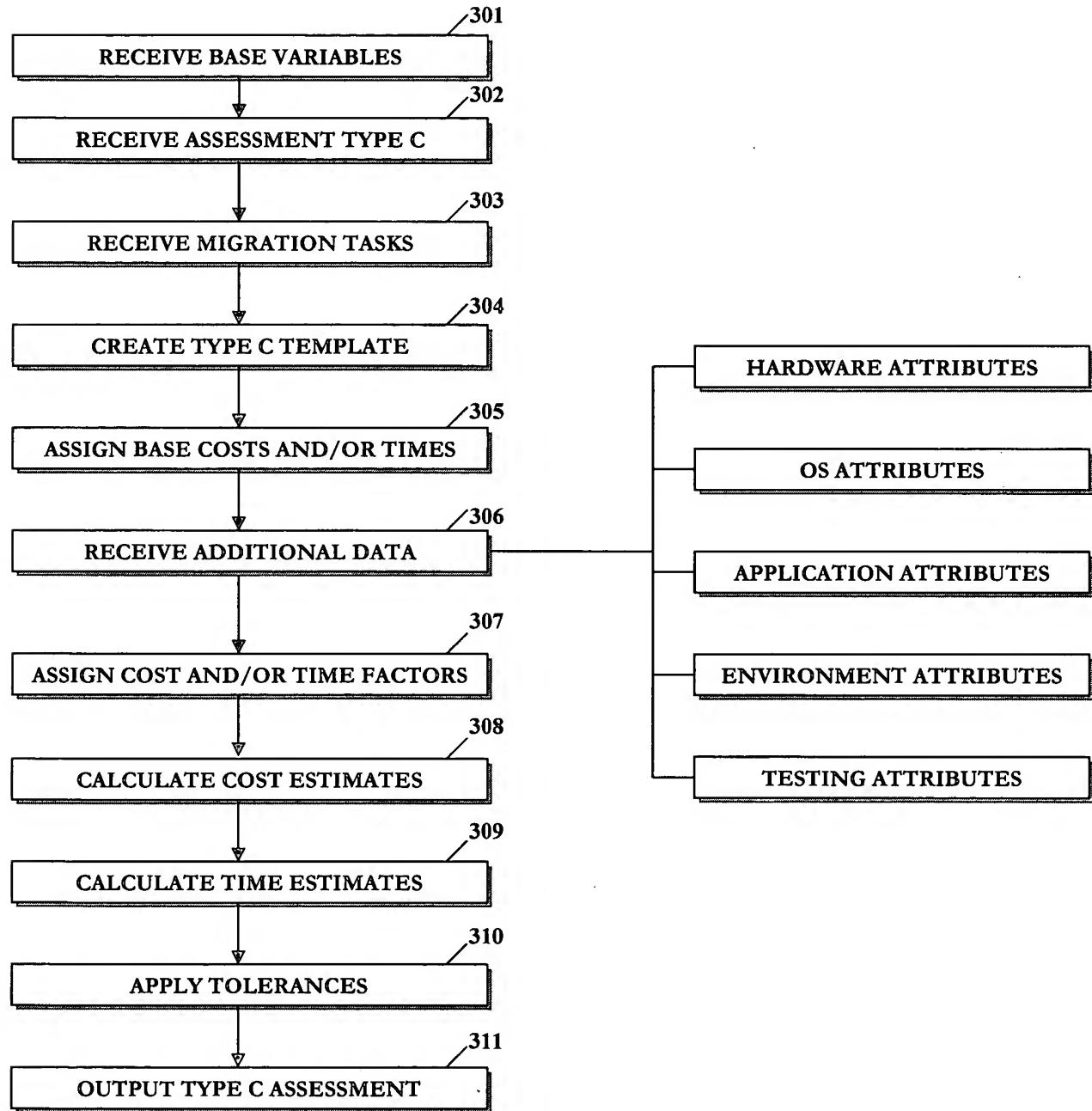


FIG. 3

### BASE COST MATRIX

TASK NO.	MIGRATION TASK	AVERAGE BASE COST
1	System Build	$^1\beta$
2	Baseline Test	$^2\beta$
3	Migration	$^3\beta$
4	System Test	$^4\beta$
5	Export Data	$^5\beta$
6	Import Data	$^6\beta$
7	Deployment	$^7\beta$

FIG. 4A

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TASK NO.	MIGRATION TASK	COMPLEXITY COST FACTOR MATRIX FOR {SOURCE-TARGET} COMBINATION		... GENERIC UNIX to UNIX VARIANT
		GENERIC UNIX to GENERIC UNIX	VMS/OpenVMS to GENERIC UNIX	
1	System Build	$^1\lambda_{U-U}$	$^1\lambda_{VMS-U}$	... $^1\lambda_{U-VAR}$
2	Baseline Test	$^2\lambda_{U-U}$	$^2\lambda_{VMS-U}$	... $^2\lambda_{U-VAR}$
3	Migration	$^3\lambda_{U-U}$	$^3\lambda_{VMS-U}$	... $^3\lambda_{U-VAR}$
4	System Test	$^4\lambda_{U-U}$	$^4\lambda_{VMS-U}$	... $^4\lambda_{U-VAR}$
5	Export Data	$^5\lambda_{U-U}$	$^5\lambda_{VMS-U}$	... $^5\lambda_{U-VAR}$
6	Import Data	$^6\lambda_{U-U}$	$^6\lambda_{VMS-U}$	... $^6\lambda_{U-VAR}$
7	Deployment	$^7\lambda_{U-U}$	$^7\lambda_{VMS-U}$	... $^7\lambda_{U-VAR}$

FIG. 4B

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TASK NO.	MIGRATION TASK	CLUSTERED to DISTRIBUTED	STANDARD CONN. to CUSTOM CONN.		MULTI PROCESSOR to SINGLE PROCESSOR	... ... ... ... ... ... ...	BIG ENDIAN to LITTLE ENDIAN $^1\eta_k$
			$^1\eta_1$	$^2\eta_2$			
1	System Build	$^1\eta_1$		$^1\eta_2$	$^1\eta_3$	... ... ... ... ... ... ...	$^1\eta_k$
2	Baseline Test	$^2\eta_1$		$^2\eta_2$	$^2\eta_3$	... ... ... ... ... ... ...	$^2\eta_k$
3	Migration	$^3\eta_1$		$^3\eta_2$	$^3\eta_3$	... ... ... ... ... ... ...	$^3\eta_k$
4	System Test	$^4\eta_1$		$^4\eta_2$	$^4\eta_3$	... ... ... ... ... ... ...	$^4\eta_k$
5	Export Data	$^5\eta_1$		$^5\eta_2$	$^5\eta_3$	... ... ... ... ... ... ...	$^5\eta_k$
6	Import Data	$^6\eta_1$		$^6\eta_2$	$^6\eta_3$	... ... ... ... ... ... ...	$^6\eta_k$
7	Deployment	$^7\eta_1$		$^7\eta_2$	$^7\eta_3$	... ... ... ... ... ... ...	$^7\eta_k$

FIG. 5

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**OS COST FACTOR MATRIX  
 FOR {SOURCE-TARGET} MIGRATION**

TASK NO.	MISSION	WINDOWS NT	SUN SOLARIS	OS/400	VSE/ESA	IBM TPF	CICS	PC DOS	z/OS
1	System Build	$^1\omega_1$	$^1\omega_2$	$^1\omega_3$	$^1\omega_4$	$^1\omega_5$	$^1\omega_6$	$^1\omega_7$	$\dots$ $^1\omega_m$
2	Baseline Test	$^2\omega_1$	$^2\omega_2$	$^2\omega_3$	$^2\omega_4$	$^2\omega_5$	$^2\omega_6$	$^2\omega_7$	$\dots$ $^2\omega_m$
3	Migration	$^3\omega_1$	$^3\omega_2$	$^3\omega_3$	$^3\omega_4$	$^3\omega_5$	$^3\omega_6$	$^3\omega_7$	$\dots$ $^3\omega_m$
4	System Test	$^4\omega_1$	$^4\omega_2$	$^4\omega_3$	$^4\omega_4$	$^4\omega_5$	$^4\omega_6$	$^4\omega_7$	$\dots$ $^4\omega_m$
5	Export Data	$^5\omega_1$	$^5\omega_2$	$^5\omega_3$	$^5\omega_4$	$^5\omega_5$	$^5\omega_6$	$^5\omega_7$	$\dots$ $^5\omega_m$
6	Import Data	$^6\omega_1$	$^6\omega_2$	$^6\omega_3$	$^6\omega_4$	$^6\omega_5$	$^6\omega_6$	$^6\omega_7$	$\dots$ $^6\omega_m$
7	Deployment	$^7\omega_1$	$^7\omega_2$	$^7\omega_3$	$^7\omega_4$	$^7\omega_5$	$^7\omega_6$	$^7\omega_7$	$\dots$ $^7\omega_m$

**FIG. 6**

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**APPLICATION COST FACTOR MATRIX  
 FOR {SOURCE-TARGET} MIGRATION**

task no.	migration task	real-time operation	mission critical	oltp	batch processing	data mining	user interactive	prod/uxn control
1	System Build	$^1\alpha_1$	$^1\alpha_2$	$^1\alpha_3$	$^1\alpha_4$	$^1\alpha_5$	$^1\alpha_6$	$\dots$
2	Baseline Test	$^2\alpha_1$	$^2\alpha_2$	$^2\alpha_3$	$^2\alpha_4$	$^2\alpha_5$	$^2\alpha_6$	$\dots$
3	Migration	$^3\alpha_1$	$^3\alpha_2$	$^3\alpha_3$	$^3\alpha_4$	$^3\alpha_5$	$^3\alpha_6$	$\dots$
4	System Test	$^4\alpha_1$	$^4\alpha_2$	$^4\alpha_3$	$^4\alpha_4$	$^4\alpha_5$	$^4\alpha_6$	$\dots$
5	Export Data	$^5\alpha_1$	$^5\alpha_2$	$^5\alpha_3$	$^5\alpha_4$	$^5\alpha_5$	$^5\alpha_6$	$\dots$
6	Import Data	$^6\alpha_1$	$^6\alpha_2$	$^6\alpha_3$	$^6\alpha_4$	$^6\alpha_5$	$^6\alpha_6$	$\dots$
7	Deployment	$^7\alpha_1$	$^7\alpha_2$	$^7\alpha_3$	$^7\alpha_4$	$^7\alpha_5$	$^7\alpha_6$	$\dots$

FIG. 7

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**ENVIRONMENT COST FACTOR MATRIX  
 FOR {SOURCE-TARGET} MIGRATION**

TASK NO.	MIGRATION TASK	128-bit SSL SECURITY	HTTP USAGE	COBOL	Custom Language Functions
		$^1\epsilon_1$	$^1\epsilon_2$	$^1\epsilon_3$	...
1	System Build	$^1\epsilon_1$	$^1\epsilon_2$	$^1\epsilon_3$	...
2	Baseline Test	$^2\epsilon_1$	$^2\epsilon_2$	$^2\epsilon_3$	...
3	Migration	$^3\epsilon_1$	$^3\epsilon_2$	$^3\epsilon_3$	...
4	System Test	$^4\epsilon_1$	$^4\epsilon_2$	$^4\epsilon_3$	...
5	Export Data	$^5\epsilon_1$	$^5\epsilon_2$	$^5\epsilon_3$	...
6	Import Data	$^6\epsilon_1$	$^6\epsilon_2$	$^6\epsilon_3$	...
7	Deployment	$^7\epsilon_1$	$^7\epsilon_2$	$^7\epsilon_3$	...

**FIG. 8**

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**BASE TIME REQUIREMENT MATRIX**

<b>TASK NO.</b>	<b>Migration Task</b>	<b>Average Base Time Requirement</b>
1	System Build	$^1_T$
2	Baseline Test	$^2_T$
3	Migration	$^3_T$
4	System Test	$^4_T$
5	Export Data	$^5_T$
6	Import Data	$^6_T$
7	Deployment	$^7_T$

**FIG. 9A**

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**COMPLEXITY TIME FACTOR MATRIX**

TASK NO.	MIGRATION TASK	GENERIC UNIX to GENERIC UNIX		VMS/OpenVMS to GENERIC UNIX	...	GENERIC UNIX to UNIX VARIANT
		$^1\Psi_{U-U}$	$^1\Psi_{VMS-U}$	$^2\Psi_{VMS-U}$	...	$^1\Psi_{U-VAR}$
1	System Build	$^1\Psi_{U-U}$				
2	Baseline Test		$^2\Psi_{U-U}$	$^2\Psi_{VMS-U}$	...	$^2\Psi_{U-VAR}$
3	Migration		$^3\Psi_{U-U}$	$^3\Psi_{VMS-U}$	...	$^3\Psi_{U-VAR}$
4	System Test		$^4\Psi_{U-U}$	$^4\Psi_{VMS-U}$	...	$^4\Psi_{U-VAR}$
5	Export Data		$^5\Psi_{U-U}$	$^5\Psi_{VMS-U}$	...	$^5\Psi_{U-VAR}$
6	Import Data		$^6\Psi_{U-U}$	$^6\Psi_{VMS-U}$	...	$^6\Psi_{U-VAR}$
7	Deployment		$^7\Psi_{U-U}$	$^7\Psi_{VMS-U}$	...	$^7\Psi_{U-VAR}$

**FIG. 9B**

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**HARDWARE TIME FACTOR MATRIX  
 FOR {SOURCE-TARGET} MIGRATION**

TASK NO.	MIGRATION TASK	CLUSTERED to STANDARD CONN. to CUSTOM CONN.		MULTI PROCESSOR to SINGLE PROCESSOR		BIG ENDIAN to LITTLE ENDIAN
		DISTRIBUTED	CUSTOM CONN.	MULTI PROCESSOR	SINGLE PROCESSOR	
1	System Build	$^1_{\text{HC-D}}$	$^1_{\text{HSC-CC}}$	$^1_{\text{HMP-SP}}$	...	$^1_{\text{HBE-LE}}$
2	Baseline Test	$^2_{\text{HC-D}}$	$^2_{\text{HSC-CC}}$	$^2_{\text{HMP-SP}}$	...	$^2_{\text{HBE-LE}}$
3	Migration	$^3_{\text{HC-D}}$	$^3_{\text{HSC-CC}}$	$^3_{\text{HMP-SP}}$	...	$^3_{\text{HBE-LE}}$
4	System Test	$^4_{\text{HC-D}}$	$^4_{\text{HSC-CC}}$	$^4_{\text{HMP-SP}}$	...	$^4_{\text{HBE-LE}}$
5	Export Data	$^5_{\text{HC-D}}$	$^5_{\text{HSC-CC}}$	$^5_{\text{HMP-SP}}$	...	$^5_{\text{HBE-LE}}$
6	Import Data	$^6_{\text{HC-D}}$	$^6_{\text{HSC-CC}}$	$^6_{\text{HMP-SP}}$	...	$^6_{\text{HBE-LE}}$
7	Deployment	$^7_{\text{HC-D}}$	$^7_{\text{HSC-CC}}$	$^7_{\text{HMP-SP}}$	...	$^7_{\text{HBE-LE}}$

**FIG. 10**

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OS TIME FACTOR MATRIX  
 FOR {SOURCE-TARGET} MIGRATION

TASK NO.	Migration Task	Windows NT	SUN SOLARIS	OS/400	VSE/ESA	IBM TPF	CICS	PC DOS	z/OS
1	System Build	$^1\theta_1$	$^1\theta_2$	$^1\theta_3$	$^1\theta_4$	$^1\theta_5$	$^1\theta_6$	$^1\theta_7$	$\dots$
2	Baseline Test	$^2\theta_1$	$^2\theta_2$	$^2\theta_3$	$^2\theta_4$	$^2\theta_5$	$^2\theta_6$	$^2\theta_7$	$\dots$
3	Migration	$^3\theta_1$	$^3\theta_2$	$^3\theta_3$	$^3\theta_4$	$^3\theta_5$	$^3\theta_6$	$^3\theta_7$	$\dots$
4	System Test	$^4\theta_1$	$^4\theta_2$	$^4\theta_3$	$^4\theta_4$	$^4\theta_5$	$^4\theta_6$	$^4\theta_7$	$\dots$
5	Export Data	$^5\theta_1$	$^5\theta_2$	$^5\theta_3$	$^5\theta_4$	$^5\theta_5$	$^5\theta_6$	$^5\theta_7$	$\dots$
6	Import Data	$^6\theta_1$	$^6\theta_2$	$^6\theta_3$	$^6\theta_4$	$^6\theta_5$	$^6\theta_6$	$^6\theta_7$	$\dots$
7	Deployment	$^7\theta_1$	$^7\theta_2$	$^7\theta_3$	$^7\theta_4$	$^7\theta_5$	$^7\theta_6$	$^7\theta_7$	$\dots$

FIG. 11

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**APPLICATION TIME FACTOR MATRIX  
 FOR {SOURCE-TARGET} MIGRATION**

task no.	migration task	real-time operation	mission critical	oltp	batch processing	data mining	user interactive	prod/uxn control
1	System Build	$^1D_1$	$^1D_2$	$^1D_3$	$^1D_4$	$^1D_5$	$^1D_6$	$\dots$
2	Baseline Test	$^2D_1$	$^2D_2$	$^2D_3$	$^2D_4$	$^2D_5$	$^2D_6$	$\dots$
3	Migration	$^3D_1$	$^3D_2$	$^3D_3$	$^3D_4$	$^3D_5$	$^3D_6$	$\dots$
4	System Test	$^4D_1$	$^4D_2$	$^4D_3$	$^4D_4$	$^4D_5$	$^4D_6$	$\dots$
5	Export Data	$^5D_1$	$^5D_2$	$^5D_3$	$^5D_4$	$^5D_5$	$^5D_6$	$\dots$
6	Import Data	$^6D_1$	$^6D_2$	$^6D_3$	$^6D_4$	$^6D_5$	$^6D_6$	$\dots$
7	Deployment	$^7D_1$	$^7D_2$	$^7D_3$	$^7D_4$	$^7D_5$	$^7D_6$	$\dots$

**FIG. 12**

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**ENVIRONMENT TIME FACTOR MATRIX  
 FOR {SOURCE-TARGET} MIGRATION**

TASK NO.	MIGRATION TASK	128-bit SSL SECURITY	HTTP USAGE	COBOL	Custom Language Functions
1	System Build	$^1X_1$	$^1X_2$	$^1X_3$	...
2	Baseline Test	$^2X_1$	$^2X_2$	$^2X_3$	...
3	Migration	$^3X_1$	$^3X_2$	$^3X_3$	...
4	System Test	$^4X_1$	$^4X_2$	$^4X_3$	...
5	Export Data	$^5X_1$	$^5X_2$	$^5X_3$	...
6	Import Data	$^6X_1$	$^6X_2$	$^6X_3$	...
7	Deployment	$^7X_1$	$^7X_2$	$^7X_3$	...

**FIG. 13**

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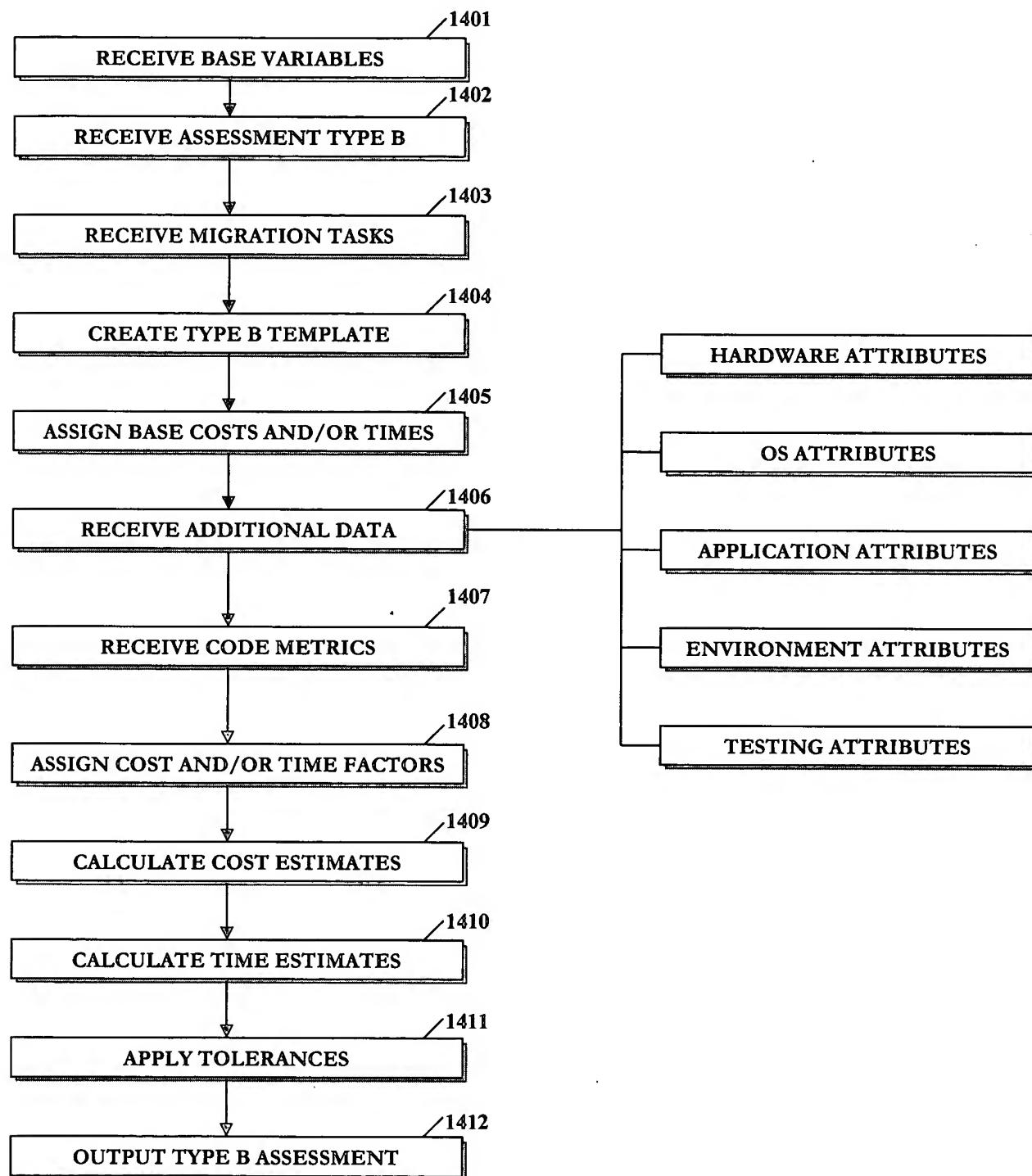


FIG. 14

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**CODE COST FACTOR MATRIX  
 FOR {SOURCE-TARGET} MIGRATION**

TASK NO.	MIGRATION TASK	OS DEP = YES	LOW	DATA VOL	Calls to Non-Standard Data Keywords
			INTEGRITY > AVERAGE	...	
1	System Build	$^1k_1$	$^1k_2$	$^1k_3$	$^1k_q$
2	Baseline Test	$^2k_1$	$^2k_2$	$^2k_3$	$^2k_q$
3	Migration	$^3k_1$	$^3k_2$	$^3k_3$	$^3k_q$
4	System Test	$^4k_1$	$^4k_2$	$^4k_3$	$^4k_q$
5	Export Data	$^5k_1$	$^5k_2$	$^5k_3$	$^5k_q$
6	Import Data	$^6k_1$	$^6k_2$	$^6k_3$	$^6k_q$
7	Deployment	$^7k_1$	$^7k_2$	$^7k_3$	$^7k_q$

**FIG. 15**

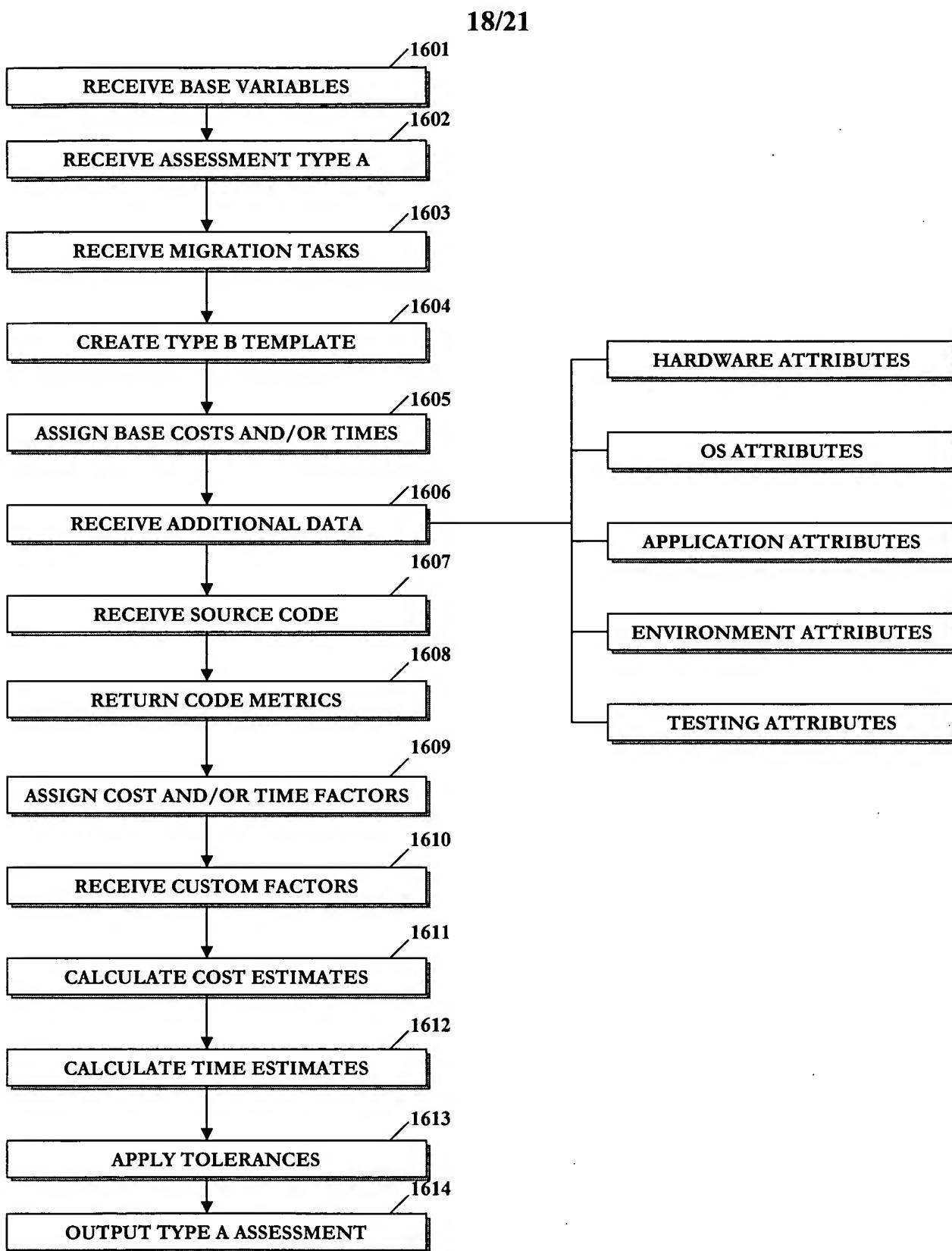


FIG. 16

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**CODE TIME FACTOR MATRIX  
 FOR {SOURCE-TARGET} MIGRATION**

TASK NO.	MIGRATION TASK	OS DEP = YES	LOW INTEGRITY > AVERAGE		DATA VOL	Calls to Non-Standard Data Keywords
			1 $m_1$	1 $m_2$		
1	System Build	1 $m_1$		1 $m_2$	1 $m_3$	.... 1 $m_q$
2	Baseline Test	2 $m_1$		2 $m_2$	2 $m_3$	.... 2 $m_q$
3	Migration	3 $m_1$		3 $m_2$	3 $m_3$	.... 3 $m_q$
4	System Test	4 $m_1$		4 $m_2$	4 $m_3$	.... 4 $m_q$
5	Export Data	5 $m_1$		5 $m_2$	5 $m_3$	.... 5 $m_q$
6	Import Data	6 $m_1$		6 $m_2$	6 $m_3$	.... 6 $m_q$
7	Deployment	7 $m_1$		7 $m_2$	7 $m_3$	.... 7 $m_q$

**FIG. 17**

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**TESTING COST FACTOR MATRIX  
FOR {SOURCE-TARGET} MIGRATION**

TASK NO.	MISSION	CREATE TESTS	APPLICATION RE-BUILD	OFF-SITE TESTING	PROGRESSIVE UNIT TESTS	NON-STANDARD CRITERIA	CUSTOM HW SIMULATION
2	Baseline Test	$^2\eta_1$	$^2\eta_2$	$^2\eta_3$	$^2\eta_4$	$^2\eta_5$	$^2\eta_r$
4	System Test	$^4\eta_1$	$^4\eta_2$	$^4\eta_3$	$^4\eta_4$	$^4\eta_5$	$^4\eta_r$

**FIG. 18**

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		TESTING TIME FACTOR MATRIX FOR {SOURCE-TARGET} MIGRATION						
NO.	TASK	MIGRATION TESTS	CREATE APPLICATION RE-BUILD	OFF-SITE TESTING	PROGRESSIVE UNIT TESTS	NON-STANDARD CRITERIA	CUSTOM HW SIMULATION	
2	Baseline Test	$^2b_1$	$^2b_2$	$^2b_3$	$^2b_4$	$^2b_5$	...	$^2b_r$
4	System Test	$^4b_1$	$^4b_2$	$^4\eta_3$	$^4b_4$	$^4b_5$	...	$^4b_r$

FIG. 19